SANZ MOLINERO Appl. No. 10/553,656

Attv. Ref.: 4982-13

April 8, 2008

Amendment

**AMENDMENTS TO THE CLAIMS:** 

Please amend the claims as follows:

1. (Currently Amended) Method for modifying plant growth and

development increasing plant yield, comprising introducing and expressing an isolated

nucleic acid encoding a metallothionein proteina genetic modification in said plant and

selecting for increased modulated expression in said plant of a nucleic acid compared to

plants of the same species lacking said genetic modification as an indication of a plant

with increased yield, encoding a metallothionein protein, provided that said modified

growth and development is not increased metal accumulation or increased tolerance or

resistance to abiotic stress

wherein said nucleic acid is selected from the group consisting of

(i) the nucleic acid sequence of SEQ ID NO: 1;

(ii) a nucleic acid sequence encoding protein of SEQ ID NO:2; and

(iii) a nucleic acid sequence encoding a metallothionein protein which is at least

95% identical to SEQ ID NO: 2.

2. (Currently Amended) Method according to claim 1, wherein said modified

plant growth and development is increased yield comprises, preferably an increase of

biomass and/or seed yield, when compared to plants of the same species lacking said

genetic modification corresponding wild type plants.

3. (Currently Amended) Method according to claim 2, wherein said increased

seed yield comprises increased total number of seeds and/or increased total weight of

-8-

1316051

SANZ MOLINERO

Appl. No. 10/553,656

Attv. Ref.: 4982-13 April 8, 2008

Amendment

seeds, when compared to plants of the same species lacking said genetic

modification corresponding wild type plants

4. (Currently Amended) Method according to Claim [[1]]2, wherein said

increased yield comprises an increase in biomassmodulated expression is increased

expression.

5. (Currently Amended) Method according to Claim [[1]]2, wherein said

increased yield comprises an increase in seed yieldgenetic modification comprises

introducing an isolated nucleic acid encoding a metallothionein protein into a plant.

(Previously Presented) Method according to Claim 1, wherein said nucleic

acid encoding a metallothionein protein encodes a type 2 metallothionein.

7. (Currently Amended) Method according to claim 6, wherein said nucleic acid

is derived from a plant, preferably from a dicotyledonous plant, more preferably from the

family Brassicaceae, most preferably the nucleic acid sequence is from Arabidopsis

thaliana.

Claim 8. (Canceled)

9. (Currently Amended) Method according to any one of Claims 1 or 5 to 7,

wherein expression of said nucleic acid encoding a metallothionein is driven by a

constitutive promoter, preferably the rice GOS2 promoter.

10. (Previously Presented) Plants obtainable by a method according to Claim 1.

Claims 11-24. (Canceled)

25. (new) Method for increasing plant yield, comprising introducing and

expressing an isolated nucleic acid encoding a metallothionein protein in said plant and

- 9 -

1316051

SANZ MOLINERO Appl. No. 10/553,656

Atty. Ref.: 4982-13

April 8, 2008 Amendment

selecting for increased plant yield compared to plants of the same species lacking said genetic modification.

- 26 (new) Method according to claim 25, wherein said increased yield comprises an increase of biomass and/or seed yield, when compared to plants of the same species lacking said genetic modification.
- 27. (new) Method according to claim 26, wherein said increased yield comprises increased total number of seeds and/or increased total weight of seeds, when compared to plants of the same species lacking said genetic modification
- 28. (new) Method according to Claim 26, wherein said increased yield comprises an increase in biomass.
- 29. (new) Method according to Claim 26, wherein said increased yield comprises an increase in seed yield.
- 30. (new) Method according to Claim 25, wherein said nucleic acid encoding a metallothionein protein encodes a type 2 metallothionein.
- 31. (new) Method according to claim 30, wherein said nucleic acid is derived from a plant.
- 32. (new) Method according to Claim 25, wherein said nucleic acid is selected from the group consisting of
  - (i) the nucleic acid sequence of SEQ ID NO: 1;
  - (ii) a nucleic acid sequence encoding protein of SEQ ID NO:2; and
- (iii) a nucleic acid sequence encoding a metallothionein protein which is at least 95% identical to SEQ ID NO: 2.

SANZ MOLINERO Appl. No. 10/553,656 Atty. Ref.: 4982-13 April 8, 2008 Amendment

33. (new) Method according to any one of Claims 29 to 32, wherein expression of said nucleic acid encoding a metallothionein is driven by a constitutive promoter.

34. (new) Plants obtainable by a method according to Claim 25.